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<u>#21</u>	Search aminopeptidase inhibitor and peptide targeting	14:24:34	<u>11</u>
<u>#18</u>	Search aminopeptidase binding protein and conjugate	14:15:43	<u>2</u>
<u>#20</u>	Search aminopeptidase inhibitor and peptid	14:13:26	<u>0</u>
<u>#17</u>	Search aminopeptidase binding protein	14:06:27	<u>815</u>
<u>#6</u>	Search Epstein-Barr virus and lupus and cross- antigen Limits: Entrez Date to 1996/01/13	08:42:36	<u>8</u>
<u>#5</u>	Search Epstein-Barr virus and lupus Limits: Entrez  Date to 1996/01/13	08:42:19	<u>138</u>
<u>#4</u>	Search Harley J and Epstein-Barr virus Limits: Entrez Date to 1996/01/13	08:42:00	1
#3	Search Harley J and lupus Limits: Entrez Date to 1996/01/13	08:40:55	<u>51</u>
<u>#2</u>	Search Harley J and EBV Limits: Entrez Date to 1996/01/13	08:40:47	<u>0</u>
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Clear History

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Mar 19 2007 07:18:03

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                 to 50,000
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        JAN 16
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NEWS 12
                 CA/CAplus updated with revised CAS roles
NEWS 13
        JAN 22
                 CA/CAplus enhanced with patent applications from India
NEWS 14
        JAN 29
                 PHAR reloaded with new search and display fields
NEWS 15
        JAN 29
                 CAS Registry Number crossover limit increased to 300,000 in
                 multiple databases
NEWS 16
        FEB 15
                 PATDPASPC enhanced with Drug Approval numbers
                 RUSSIAPAT enhanced with pre-1994 records
NEWS 17
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                 KOREAPAT enhanced with IPC 8 features and functionality
NEWS 19
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                 MEDLINE reloaded with enhancements
NEWS 20
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                 EMBASE enhanced with Clinical Trial Number field
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NEWS 22
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NEWS 23
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                 to 300,000 in multiple databases
NEWS 24
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                 WPIDS/WPIX enhanced with new FRAGHITSTR display format
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        MAR 16
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NEWS 26
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                 MARPAT now updated daily
NEWS 27
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             NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
NEWS EXPRESS
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
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=> aminopeptidase

14992 AMINOPEPTIDASE

2615 AMINOPEPTIDASES

L1 15458 AMINOPEPTIDASE

(AMINOPEPTIDASE OR AMINOPEPTIDASES)

=> peptide (s) inhibitor

367496 PEPTIDE

269088 PEPTIDES

470684 PEPTIDE

(PEPTIDE OR PEPTIDES)

534896 INHIBITOR

539742 INHIBITORS

841821 INHIBITOR

(INHIBITOR OR INHIBITORS)

L2 21613 PEPTIDE (S) INHIBITOR

=> L2 and L1

L3 375 L2 AND L1

=> binding and L3
968834 BINDING

2099 BINDINGS 969434 BINDING

(BINDING OR BINDINGS)

L4 60 BINDING AND L3

=> targeting and L4

69285 TARGETING

8 TARGETINGS

69287 TARGETING

(TARGETING OR TARGETINGS)

L5 3 TARGETING AND L4

=> D L5 IBIB ABS 1-3

L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:991150 CAPLUS

DOCUMENT NUMBER: 140:35913

TITLE: Breast homing peptides binding to

aminopeptidase P in beast vasculature

identified by phage display and use thereof as targeting drugs for breast cancer treatment

INVENTOR(S): Ruoslahti, Erkki; Essler, Markus

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 30 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

APPLICATION NO. PATENT NO. KIND DATE DATE -----------------------US 2003232762 A1 20031218 US 2002-158566 20020529 US 2002-158566 20020529 PRIORITY APPLN. INFO.: The present invention provides a method of directing a moiety to breast vasculature in a subject by administering to the subject a conjugate which contains a moiety linked to a homing mol. that selectively homes to breast vasculature, whereby the moiety is directed to breast vasculature. In one embodiment, the homing mol. is a peptide containing the amino acid sequence PGPEGAG, or a peptidomimetic thereof. The above peptide is derived from a cyclic nonapeptide, CPGPEGAGC, isolated from a T7 phage CX7C library, where C is cysteine and X is any amino acid. This cyclic peptide CPGPEGAGC homes to normal breast tissue with a 100-fold selectivity over nontargeted phage. Specifically, it binds to the vascular endothelium in the breast but not in other tissues, and binds to the vasculature of hyperplastic and malignant lesions in transgenic breast cancer mice. Furthermore, the aminopeptidase P is identified as the receptor for cyclic CPGPEGAGC breast homing and the binding of aminopeptidase P to insolubilized CPGPEGAGC can be blocked by its free cognate synthetic peptide, or apstatin (a synthetic inhibitor of aminopeptidase P), or an antiaminopeptidase P antibody. In contrast, the antiaminopeptidase P antibody does not block the breast homing of another peptide CRSS, which might bind distinct target receptors in breast tissue. This breast homing peptides may be useful in designing drugs for the prevention and treatment of breast cancer.

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:185320 CAPLUS

DOCUMENT NUMBER: 136:242932

TITLE: Identification of peptide ligands for specific cell

types by phage display for use in drug

targeting and control of biological processes

INVENTOR(S): Arap, Wadih; Pasqualini, Renata

Board of Regents, the University of Texas System, USA PCT Int. Appl., 311 pp. CODEN: PIXXD2 PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PRIORITY APPLN. INFO.: US 2000-231266P P 20000908 Α 20010117 US 2001-765101 W 20010907 WO 2001-US27692 WO 2002-US27836 W 20020830 W 20021030 WO 2002-US34987 AΒ The present invention concerns methods and compns. for in vivo and in vitro targeting. A large number of targeting peptides directed towards human organs, tissues or cell types are disclosed. The peptides are of use for targeted delivery of therapeutic agents, including but not limited to gene therapy vectors. A novel class of gene therapy vectors is disclosed. Certain of the disclosed peptides have therapeutic use for inhibiting angiogenesis, inhibiting tumor growth, inducing apoptosis, inhibiting pregnancy or inducing weight loss. Methods of identifying novel targeting peptides in humans, as well as identifying endogenous receptor-ligand pairs are disclosed. Methods of identifying novel infectious agents that are causal for human disease states are also disclosed. A novel mechanism for inducing apoptosis is further disclosed. REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2002:185294 CAPLUS DOCUMENT NUMBER: 136:227943 Chimeric molecules for targeting proteins to TITLE: the Skp1-Cullin-F box complex for ubiquitination and degradation INVENTOR(S): Deshaies, Raymond J.; Crews, Craiq; Sakamoto, Kathleen PATENT ASSIGNEE(S): California Institute of Technology, USA; Yale University; The Regents of the University of California SOURCE: PCT Int. Appl., 35 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE ------\_ \_ \_ \_ \_\_\_\_\_ -----WO 2002020740 A2 20020314 WO 2001-US42158 20010910 WO 2002020740 **A**3 20020808 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2001095041 Α5 20020322 AU 2001-95041 EP 1322750 20030702 EP 2001-975749 A2 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

WO 2001-US42158 AB The present invention is based on the discovery that an ubiquitin pathway protein ubiquitinates any target protein once the ubiquitin pathway protein and the target protein are placed in proximity by a chimeric construct that binds the ubiquitin pathway protein and the target protein.

US 2002-299203

US 2000-231359P

US 2001-953473

20021118

P 20000908

A2 20010910

W 20010910

20040226

**A**1

US 2004038358

PRIORITY APPLN. INFO.:

Accordingly the present invention provides a composition that ubiquitinates a target protein. The composition comprises an ubiquitin pathway protein binding moiety and a targeting moiety, wherein the ubiquitin pathway protein binding moiety recognizes an ubiquitin pathway protein and the targeting moiety recognizes a target protein and wherein the ubiquitin pathway protein binding moiety is coupled to the targeting moiety. In addition, the present invention provides libraries of compns., where each composition contains an ubiquitin pathway protein binding moiety and a member of a mol. library, which can be used to identify proteins involved in a predetd. function of cells. The intracellular levels of many proteins are regulated by ubiquitin-dependent proteolysis. One of the best-characterized enzymes that catalyzes the attachment of ubiquitin to proteins is a ubiquitin ligase complex, Skp1-Cullin-F box complex containing Hrt1 (SCF). We sought to artificially target a protein to the SCF complex for ubiquitination and degradation To this end, we tested methionine aminopeptidase-2 (MetAP-2), which covalently binds the angiogenesis inhibitor ovalicin. A chimeric compound, proteintargeting chimeric mol. 1 (Protac-1), was synthesized to recruit MetAP-2 to SCF. One domain of Protac-1 contains the  $I\kappa B\alpha$ phosphopeptide that is recognized by the F-box protein  $\beta$ -TRCP, whereas the other domain is composed of ovalicin. We show that MetAP-2 can be tethered to SCF $\beta$ -TRCP, ubiquitinated, and degraded in a Protac-1-dependent manner. In the future, this approach may be useful for conditional inactivation of proteins, and for targeting disease-causing proteins for destruction.

=> L4 and therapeutic

222894 THERAPEUTIC

22911 THERAPEUTICS

239884 THERAPEUTIC

(THERAPEUTIC OR THERAPEUTICS)

L6 5 L4 AND THERAPEUTIC

=> D L6 IBIB ABS 1-5

L6 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:71066 CAPLUS

DOCUMENT NUMBER:

142:170050

TITLE:

DEF domain-containing members of the MAP kinase

pathway and their use in screening for drug inhibitors

INVENTOR(S):

Blenis, John; Murphy, Leon O.

PATENT ASSIGNEE(S):

President and Fellows of Harvard College, USA

SOURCE:

PCT Int. Appl., 104 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND		DATE	APPLICATION NO.						DATE			
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WO 2005007090 A2			A2	2 20050127			WO 2004-US21514						20040702			
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SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-484761P P 20030703 Mitogen-activated protein (MAP) kinases (e.g., ERK1/2) phosphorylate a variety of target proteins including, for example, several immediate-early gene products (e.g., Fos, Myc, and Jun family proteins). Certain phosphorylation reactions require binding of the MAP kinase to the DEF domain of the target protein. Inhibitors that block this interaction may be useful therapeutics for human disease, including as antineoplastic agents. This invention provides several advantages over known therapies that directly target the MAP kinase signaling cascade. Typically, most compds. that inhibit the MAP kinase pathway are non-specific and inhibit more than one enzyme, and the targeted inhibited kinases are not available to perform normal physiol. functions necessary for cell survival, whereas therapeutic methods of the present invention inhibit the activation of particular target proteins and leave the MAP kinases enzymically active and available to phosphorylate other non-DEF domain-containing proteins. Thus, DEF domains are identified in a large number of proteins, and the principles of the invention are exemplified using the immediate-early gene, c-Fos. Screening assays useful for identifying compds. that inhibit the MAP

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

kinase-DEF domain interaction are also disclosed.

ACCESSION NUMBER: 2002:185320 CAPLUS

DOCUMENT NUMBER: 136:242932

TITLE: Identification of peptide ligands for specific cell

types by phage display for use in drug targeting and

control of biological processes Arap, Wadih; Pasqualini, Renata

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 311 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

INVENTOR(S):

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     WO 2004020999
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PRIORITY APPLN. INFO.:
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                                            WO 2002-US34987
                                                                W
                                                                  20021030
     The present invention concerns methods and compns. for in vivo and in
AΒ
     vitro targeting. A large number of targeting peptides directed towards human
     organs, tissues or cell types are disclosed. The peptides are of use for
     targeted delivery of therapeutic agents, including but not
     limited to gene therapy vectors. A novel class of gene therapy vectors is
     disclosed. Certain of the disclosed peptides have therapeutic
     use for inhibiting angiogenesis, inhibiting tumor growth, inducing
     apoptosis, inhibiting pregnancy or inducing weight loss. Methods of
     identifying novel targeting peptides in humans, as well as identifying
     endogenous receptor-ligand pairs are disclosed. Methods of identifying
     novel infectious agents that are causal for human disease states are also
     disclosed. A novel mechanism for inducing apoptosis is further disclosed.
REFERENCE COUNT:
                               THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                         4
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L6
    ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
                         1998:164204 CAPLUS
                         128:184573
                         Intestinal Peptide and Protein Delivery: Novel
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ACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE:
                         Bioadhesive Drug-Carrier Matrix Shielding from Enzymic
                         Attack
AUTHOR (S):
                         Bernkop-Schnuerch, Andreas; Pasta, Martina
CORPORATE SOURCE:
                         Center of Pharmacy Institute of Pharmaceutical
                         Technology, University of Vienna, Vienna, A-1090,
                         Austria
SOURCE:
                         Journal of Pharmaceutical Sciences (1998), 87(4),
                         430-434
                         CODEN: JPMSAE; ISSN: 0022-3549
PUBLISHER:
                         American Chemical Society
DOCUMENT TYPE:
                         Journal
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LANGUAGE: English

We have been developing a novel bioadhesive drug-carrier matrix that protects embedded therapeutic peptides and proteins from degradation by the most abundant intestinal proteases. Increasing amts. of the Bowman-Birk inhibitor (BBI) were thereby covalently linked to chitosan-EDTA. The bioadhesive properties of the resulting polymer-BBI conjugates and their inhibitory effect toward trypsin (EC 3.4.21.4), chymotrypsin (EC 3.4.21.1), elastase (3.4.21.36), carboxypeptidase A (EC 3.4.17.1), and aminopeptidase N (EC 3.4.11.2) were evaluated in vitro. Whereas unmodified chitosan-EDTA exhibited under our exptl. conditions an adhesive strength of 54.4  $\pm$  7.7 mN, it was determined to be  $21.0 \pm 3.8$  mN for the comparably most adhesive polymer-BBI conjugate (mean  $\pm$  SD; n = 5). All polymer-BBI conjugates showed a strong inhibitory activity toward the serine proteases trypsin and chymotrypsin. However, the protective effect toward elastase was markedly lower. Due to the high binding affinity of chitosan-EDTA toward zinc, which represents an essential cofactor for carboxypeptidase A and aminopeptidase N, all polymer-BBI conjugates displayed addnl. a strong protective effect toward these exopeptidases. The novel bioadhesive polymer-BBI conjugates described in this study seem to be very useful drug-carrier matrixes in overcoming the enzymic barrier to orally administered peptide and protein drugs.

L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:154462 CAPLUS

DOCUMENT NUMBER: 128:248433

TITLE: Synthesis and in vitro evaluation of

chitosan-EDTA-protease-inhibitor conjugates which might be useful in oral delivery of

peptides and proteins

AUTHOR(S): Bernkop-Schnurch, Andreas; Scerbe-Saiko, Andreas

CORPORATE SOURCE: Center of Pharmacy, Institute of Pharmaceutical

Technology, University of Vienna, Vienna, A-1090,

Austria

SOURCE: Pharmaceutical Research (1998), 15(2), 263-269

CODEN: PHREEB; ISSN: 0724-8741

PUBLISHER: Plenum Publishing Corp.

DOCUMENT TYPE: Journal LANGUAGE: English

A novel mucoadhesive polymer that protects peptide drugs from degradation by secreted as well as membrane-bound proteases in the intestine was developed and this polymer was evaluated in vitro. The serine protease inhibitors antipain, chymostatin and elastatinal were covalently linked to chitosan (poly- $[1 \rightarrow 4]$ - $\beta$ -D-glucosamine). Thereafter, the complexing agent EDTA was bound to the remaining primary amino groups of the polymer. The inhibitory effect of the resulting polymer-conjugate towards trypsin (EC 3.4.21.4), chymotrypsin (EC 3.4.21.1), elastase (3.4.21.36), carboxypeptidase A (EC 3.4.17.1), carboxypeptidase B (EC 3.4.17.2) and aminopeptidase N (EC 3.4.11.2) as well as its mucoadhesive properties were evaluated in vitro. Whereas the novel polymer-conjugate exhibited excellent swelling properties, its adhesive force was under our assay conditions 42% lower than that of unmodified chitosan. However, the polymer-conjugate showed a strong inhibitory activity towards all tested serine proteases. Due to its addnl. high binding affinity towards bivalent metal ions, it also inhibited the Zn2+-dependent exopeptidases carboxypeptidase A, B and aminopeptidase N. The novel mucoadhesive polymer-conjugate described in this study seems to be a useful tool in overcoming the enzymic barrier to perorally administered therapeutic peptides and proteins.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER:

1992:102217 CAPLUS

DOCUMENT NUMBER:

116:102217

TITLE:

Molecular recognition units

INVENTOR(S):

Rodwell, John D.; McKearn, Thomas J.; Alvarez, Vernon

L.; Radcliffe, Robert D.

PATENT ASSIGNEE(S): SOURCE:

Cytogen Corp., USA PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9117173	A1	19911114	WO 1991-US3116	19910507
W: CA, JP	DE D''		an an im iii wi	G.B.
RW: AT, BE, CH, US 5196510	DE, DK A		GB, GR, IT, LU, NL, US 1990-519702	19900507
EP 527954	A1		EP 1991-911988	19910507
R: AT, BE, CH, PRIORITY APPLN. INFO.:	DE, DK	, ES, FR,	GB, GR, IT, LI, LU, US 1990-519702	NL, SE A 19900507
			US 1988-291730	B2 19881229
R: AT, BE, CH,			GB, GR, IT, LI, LU, US 1990-519702	NL, SE A 19900507

A novel mol. recognition unit (MRU) (protein or polypeptide containing a AB binding site of or for a ligand) is identified and/or designed and prepared by (1) stimulating production of B-lymphocytes specific for an antigen or a hapten containing a mol. recognition site complementary to the site to be mimicked; (2) immortalizing the B-cells; (3) identifying B-cells which secrete IgM binding to the antigen or hapten; (4) further screening for early B-cells in which the deoxyribonucleotide sequence expressed is rearranged in only 1 complementarity-determining region (CDR) compared to that of germline genes; (5) determining the nucleotide sequence in this region or the corresponding amino acid sequence; and (6) synthesizing the MRU encoded by the nucleotide sequence. The MRU optimally comprises <40-45 amino acid residues. The MRU may be conjugated or fused with an effector domain, optionally via a linker moiety, for diagnostic or therapeutic use. Suitable ligands include antigens, hormones, pheromones, neurotransmitters, signal proteins and peptides, prostaglandins, etc. Thus, thrombus-binding fusion peptides were prepared chemical in which the MRU constituted CDR3 of monoclonal antibody PAC-1 (Taub, et al., 1989) engineered to have enhanced affinity for activated platelet fibrinogen receptor, and the effector domain quant. bound metal ions. A 99mTc-labeled fusion peptide was injected i.v. into rabbits for imaging of blood clots with a gamma camera. Background clearance of the peptide was rapid owing to its low mol. weight, and the peptide was not immunogenic.

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